

# Beyond the Bicameral Mind

## The Bicameral Brain

Julian Jaynes, an American psychologist, published his book *The Origins of Consciousness in the Breakdown of the Bicameral Mind* in 1982. This book may be the most controversial work of the late twentieth century. It challenges accepted ideas of human history, culture, religion, psychology and civilization - past, present and future. To support his theory Jaynes draws on archeological, anthropological, neurological and linguistic evidence to the outrage of those working in these fields. For his trouble he lost his position at Princeton.

What is consciousness? Normally, we associate it with learning, purposeful behaviour and the evolution of the higher primates. It happens inside our heads when we are thinking or making decisions. Jaynes dismisses all this and concludes that consciousness is not what we generally think it is. It is *not* involved in learning or performing skills. It is not necessary for making judgements and has no location except an imaginary one.

Consciousness is an *operation*, not a function, the invention of an analog world that parallels the real world in the same way a map relates to the area it depicts. Consciousness creates this analog world only from objectively observable things and does this by using metaphors to designate or describe things for which words are not available. We 'see' the solutions and have 'viewpoints'; minds are 'broad', 'open', 'deep' or 'narrow'; we can 'hold' something in our mind or have it at the 'back' or 'out' of our minds. These are all metaphors.

Similarly, we describe the world in metaphorical terms. For Jaynes consciousness is, in fact, a metaphor-generated model of the world. But metaphor is

a property of language, and if consciousness is the invention of an analog world based on language, then consciousness



must have become part of human evolution *after* language. Jaynes' radical view is that consciousness is of a much more recent origin than we like to believe.

Most important brain functions are bilateral, ie they are performed in both the right and left sides of the brain. The exception is language; all our speech areas are on the left side. There are three speech areas in the left hemisphere and they have different functions and values. Two are concerned chiefly with articulation, and vocabulary and grammar respectively. The third is known as Wernicke's area and is involved with syntax, meaning and understanding speech.

But language is probably the most important of the skills that distinguish the human species. It has always been the basis of social interaction for humanity, both today and during the post-glacial millennia of the past. Why is language not represented in both hemispheres? The physical, 'neurological' structure necessary for language exists in the right side; children with left side lesions (damage) to Wernicke's area transfer the speech mechanism to the right side, thus *not* becoming speechless.

What is, or was, the function of the right hemisphere areas that correspond to the speech areas of the left side, is the foundation of Jaynes' theory. These areas have "seemingly no easily discernible function", known from cases where due to injury or illness, large amounts of tissue have been removed from the right side with "surprisingly little deficit in mental function". The brain may have two hemispheres, ie *bicameral*, but one seems relatively less essential unless the silent 'speech' areas of the right side had some function in the past.

This function must have been important enough to stop right side development as an auxiliary speech area. In humanity's early history the right side of the brain was used for something even more basic than the articulate speech of language, that pre-

cluded such development. Julian Jaynes believes that the right hemisphere was left free to listen to the language of the gods. These gods were, according to Jaynes, hallucinatory mental voices - sometimes 'heard' by more than one individual at the same time.

The 'voices' and 'speech of the gods' were organised in the right area that corresponds to Wernicke's area on the left, and could have been transmitted to the articulate right across the connecting neural pathway. Stimulating the right side induces auditory and sometimes visual hallucinations in people - they hear voices that often command or admonish them. Often the experiences are remembered as an actual event, where the person hearing the voices was passively acted upon. The significant point is the 'otherness' of such experiences, not the actions or words that are heard.

Modern clinical testing provides some support for this hypothesis. It has been shown that both sides of the brain can understand language and that, under certain conditions, the two sides can act independently. Differences in cognitive function today echo the differences of function between humans and gods in the past. For early civilised man the gods were responsible for guiding and planning action, they sorted out and categorised events and directed humanity in its efforts. From what we know of early civilisations mankind lived, behaved and thought very differently from our modern experience.

## The Bicameral Mind

Bicameral humanity had a mind that was not just physically divided into two, but had one half that communicated with people while the other half relayed the information of the individual's bicameral voice, or god. "At one time human nature was split in two, an executive part called a god, and a follower part called a man. Neither part was conscious. This is almost incomprehensible to us." (p 84)

When Jaynes describes bicameral mind as nonconscious, he is talking about the language-based, metaphor-generated analog that he calls consciousness. Lacking the ability to think

through a situation and to anticipate likely outcomes, bicameral humanity depended on voices to guide them. Jaynes likens it to driving a car - while engaged in hand, foot and head behaviour, one's consciousness is usually engaged in something else. There is a "reciprocity of stimulation" in one's relation to the world, a smooth interchange of action and reaction that is only interrupted when a new situation occurs.

When we're confronted with something new we assess its implications using our lifetime's experience. When bicameral humans had to make a decision they relied on the bicameral voice which came and "with the stored up admonitory wisdom of his life would tell him nonconsciously what to do." (p 85)

In one's normal day-to-day activities, where what is to be done has been learned - like driving a car or ploughing a field - such instruction is not necessary.

The language of the earliest surviving writings depicts this state of mind; 'god' spoke to Moses, Athena made the decision for Achilles on the beach before Troy. In both cases the voice appeared as a grey mist. While we describe these as hallucinations, to bicameral humans the voice had to be obeyed without questioning or doubt. To hear was to obey (as many 'psychotics' do, auditory hallucinations also being common in schizophrenics) because the command and the action were not separated in the bicameral mind. One side 'spoke' to the other and events then took their course.

What caused the bicameral voices? Jaynes suggests it was stress. Bicameral people had a much lower stress threshold than modern humans and anything that required a decision of any sort was sufficient to cause an auditory hallucination. Out of decision/stress would come a divine voice that made the choice or resolved any conflict between habit and



novelty. To each individual the voices must have seemed omnipotent and omniscient, commanding obedience.

Because most of our lives are routine and because obedience is the basis of social organisation, Jaynes believes that civilization without consciousness is possible. More than that, he believes that there is good evidence for the existence of the bicameral mind left to us from the earliest civilizations. The first records, dating from around 3000BCE, are impossible to translate exactly because they are hieroglyphics and cuneiform. The oldest writing that we can translate with reasonable certainty is the epic history of the Greeks and the Trojans.

Occurring sometime in the thirteenth century BCE and written down around 850-900BCE this story, known as the Iliad, is attributed to Homer although written by a succession of bards (poets). Jaynes regards this as a psychological document of immense importance and asks "What is mind in the Iliad?...The answer is disturbingly interesting. There is in general no consciousness in the Iliad" (p.69) - no mind, no soul or will,

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and no subjective consciousness or words for it.

To others a person would appear to be the cause of their behaviour, but not to the person themselves. Agamemnon says to Achilles "What could I do? The gods always have their way" and Achilles accepts this explanation without question. What we describe as hallucinations directed the Trojan War, which was fought by "noble automatons" who knew not what they did. They were humans without an internal mind-space to introspect upon. Planning and organisation occurred without any consciousness and was then 'told' to the individual in their familiar language. The earliest writing in a language we can comprehend reveals a very different mentality from our own. The mentality depicted in this fragment of the Mycenaean Age is called by Jaynes the *bicameral mind*, lacking the subjective analog he calls consciousness.

## The Bicameral World

*The Iliad* is a window into unsubjective times, written during the great change from the bicameral to the conscious mind. It portrays a world of kingdoms centred on royal palaces, strictly hierarchical in structure and supported by agriculture. It was the age of the great empires of the Nile and Tigris-Euphrates rivers.

Jaynes argues that a rapid transformation from gathering to agriculture, about 9,000BCE, its spread around the eastern Mediterranean and the growth of empires after 5,000 BCE were due to the operation of the bicameral mind. The bicameral mind was a form of social control that allowed humanity to develop large communities - it "evolved as a final stage of the evolution of language. And in this development lies the origin of civilization" (p 126).

From fossil evidence we know that the brain size of early man grew with astonishing rapidity after 25,000 BCE. Articulate speech had started and was becoming unilateral in the brain as, under the pressure of enduring tasks, verbal hallucinations evolved through natural selection as a method of behavioural control. They were necessary for the continuity of the tribal group.

The significance of the beginning of language is that it allowed the chief, or king, to exercise control and to keep his people at their task. As small tribal villages grew into agricultural towns, auditory hallucinations developed from a form of behavioural control into the basis of social control. This was a result of the association of the voice with the person of the king.

If stress is the cause of hallucinations, then the death of the king would be more than enough to trigger his hallucinated voice. The house of the dead man, whose voice still ruled, would be regarded as special. He had become a god-king and his house a temple, often with his remains inside - the source of the hallucinated commands that maintained the cohesion of the group. The king's successor may have been buried in the same god house, as at Eynan (about 9,000 BCE in Mesopotamia), suggesting that the hallucinated voice of the old king became fused with the voice of the new. Was this the beginning of the Osiris myth that was so powerful in Egypt.

Ancient civilizations of the Middle East, Central and South America built cities centred on huge monuments to the dead who were called 'gods'. In these temples, idols became increasingly common - during the 7th and 6th millennia BCE, progressing from extremely primitive figurines to large statues, often with exaggerated eyes. Bicameral humans believed that these idols spoke to them - as the Incas explained to the Spanish in what was possibly one of the few confrontations between subjective and bicameral minds.

By the third millennium BCE, writing had developed from pictures of visual events to symbols of phonetic events, with hieroglyphics and the more widespread cuneiform falling between these two extremes. Although most of the words can be translated, being inventories or lists, abstract terms allow different interpretations, depending on context and translator. But we know enough about early Mesopotamian kingdoms to be sure that they were Theocracies, ruled by priests under the king who was the first deputy of each city's god.

Large structures, like ziggurats, housing the statue of the god, are common to most bicameral kingdoms. The inscriptions on these monuments tell of the god as commander, counsellor, decision-maker and of the elaborate rituals for feeding, clothing and washing the statue. The king was the manager and caretaker of the god's lands. In

Mesopotamia in the basin of the Tigris and Euphrates Rivers, the Sumerian, Babylonian, Aramean, Akkadian and Hittite empires distinguished between their living king and their god, although the king became divine after death. This was not the case in Egypt. During the long period of the Egyptian dynasties, each king was Horus in life and became Osiris after death, the voice of his father guiding him through the generations. Intermediaries between the king and those carrying out his orders heard the voice of the living king, not of his father.

As the bicameral world became more complex, the number of voices used by the Egyptian Pharaoh to his courtiers increased - one text from 1,500BCE specifying 14.

Over the long millennia down to the 2nd millennium BCE, humanity acquired civilization. With astonishing consistency, from Egypt to Peru, Greece to Mexico, these early civilizations developed burial rites, idolatry and divine government. Their sculptures share the image of the god touching the king on his left side. Bicameral kingdoms were organised around a large central worship-

ping-place where the king received guidance from the god, in the form of a statue, that he passed on and repeated in his voice, hallucinated in the minds of the people.

Bicameral humans had two separately integrated organisations in the nervous system - one in left hemisphere that was articulate, the one on the right composing what to say. Neither side was 'conscious' in our sense. Bicameral civilization was founded on obedience to the gods of one's city and was therefore politically stable (despite the regularity of wars between cities and empires there were few internal power struggles). The bicameral mind accepted the authority of the gods and, with no subjective sense of purpose, the hierarchy that served them.

## The Breakdown

During the second millenia BCE, the long development of the bicameral world was shaken. As cities grew larger and society more complex, bicameral control by the hierarchy would become more and more difficult. Bicameral theocracies could be subject to sudden collapse. But the nature of the second millenium, characterised by war, national migrations and natural catastrophes put extreme pressure on the elaborate structures of the bicameral mind.

Also, the success of writing showed the limitations of the gods. Auditory hallucinations could not be ignored, but instructions given from writing are avoidable. Writing meant "the word of a god had a controllable location rather than an ubiquitous power with immediate obedience" (p 208). Jaynes thinks the increasing use of written commands led to a reduction in the auditory hallucinatory control of the bicameral mind.

More importantly, in social chaos the gods could not usefully tell you what to do. When confronted with events or people from outside the collective experience bicameral reliance on mental voices was a liability, if Jaynes' description of the second millenia is correct. "Heavy laden with profound and irreversible changes, vast geological catastrophes occurred. Civilizations perished. Half the world's population became refugees. And wars..." (p 209) Sometime between the second millenium BCE and 1,200 BCE the whole of the Mediterranean region suffered universal calamity of enormous magnitude.

The cause of the catastrophe Jaynes attributes to the eruption of the volcano Thera (or Santorini), north of Crete. Large areas of land collapsed under the Aegean Sea, pumice and ash covered what was left of Thera, and a huge tidal wave smashed the bicameral kingdoms into history. Whether one or a series of eruptions, it set off huge movements of people and invasions which destroyed the Hittite and Mycenaean empires and "threw the world into a dark ages within which came the dawn of consciousness" (p 209). The breakdown of the bicameral mind came with the chaos of historical upheaval. Three cultures left records of the breakdown.

In Greece and Mesopotamia, the cultural norm underwent a transformation that was documented. In Mesopotamia the Assyrians constantly bemoaned the fact that their gods had left them. All kinds of divination flourished, with incantations and omens for everything in a world believed to be darkened by hostile demons. The benign bicameral gods had been lost, replaced by deep uncertainty.

For over a thousand years, oracles were the method for making important decisions.

Greece is so important because of the understanding we have of its language. When Jaynes claims that there is 'no mind' in the *Iliad*, he translates various words as parts of the body instead of as 'mind' or 'spirit'. From text to text after 800BCE the meaning of those words changes. Usage of some words declines, while others increase. Physical sensations become mental sensations. In the sixth century BCE Solon of Athens wrote his famous injunction "Know Thyself", which would have been incomprehensible to a bicameral human. Suddenly, we are in the modern, subjective age which has inherited from the first humans who sought to explain conscious experience the division between mind and body.

The third piece of historical evidence is the Old Testament, which is "in its grand overall contour the description of the loss of the bicameral mind and its replacement by subjectivity over the first millenium BCE" (p 294). It is the story of the refugees known as Khabiru to the Babylonians and as Hebrews to us, of the slow retreat into silence of the remaining voices (prophets) and the subsequent chaos and violence. Out of this came the considered subjective thought of moral teachers, who debated with their god and sought wisdom in their study of the law. By 400BCE, bicameral prophecy, so important in the early books of the Old Testament, has disappeared.

Consciousness, with its characteristics of mind-space, self reference and narratisation (visualising the story of one's life), with its subjective uncertainties, developed as the divine bicameral voices withdrew. Over the first millenium BCE they disappeared into the skies that were now the home of the gods. Since then, humanity's history has been that of the rise of consciousness.

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Jaynes says his theory began as an "impulse to discover the source of consciousness" (p 446). He divides human history into four periods; the second millenium BCE when the voices of the gods withdrew; in the first millenium BCE the few

who still heard the voices (prophets, priests and oracles) died away; during the first millenium CE, the sayings and hearings preserved in sacred text were obeyed; in the 2nd millenium CE, those writings lose their authority as the scientific revolution progresses. At the end of the 2nd millenium our problem is to become our own authorisation, to let the dead king die as we enter the third millenium. However, we "are still, in a sense, deep in this transition to a new mentality and all about us lie the remnants of our recent bicameral past. We have our houses of gods, which record our births, define us, marry us, and bury us, receive our confessions and intercede with the gods to forgive us our trespasses. Our laws are based on values which, without their divine pendency, would be empty and unenforceable. Our national mottoes and hymns of state are usually divine invocations. Our kings, presidents, judges and officers begin their tenures with oaths to the now-silent deities taken upon the writings of those who have last heard them"

(p 317).

**Gerard**

*The Origins of Consciousness in the Breakdown of the Bicameral Mind*  
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